Request — Paul Schulwitz please

133667

Access DB#

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sabiha Qazi Examiner #: 74141 Date: 9/27/04

Art Unit: 1616 Phone Number 30 20622 Serial Number: 10/780,103

Mail Box and Bldg/Room Location: Results Format Preferred (circle): PAPER DISK E-MAIL

4C70 Rem 4A45

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: 26,27-Homologated-20-epi-2-alkylidene-19-nor Vit D

Inventors (please provide full names): Deluca et al

Earliest Priority Filing Date: 3/17/1997, 2/17/04 (FD)

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for the method of Cl 49, 59 69 & 79.

Please note that all compds are 19-nor Vit. D compds.

Please check the possibility of DP in DeLuca's publication, if possible by searching Cl of 19-nor, 2-methylene compds on US Patent Database?

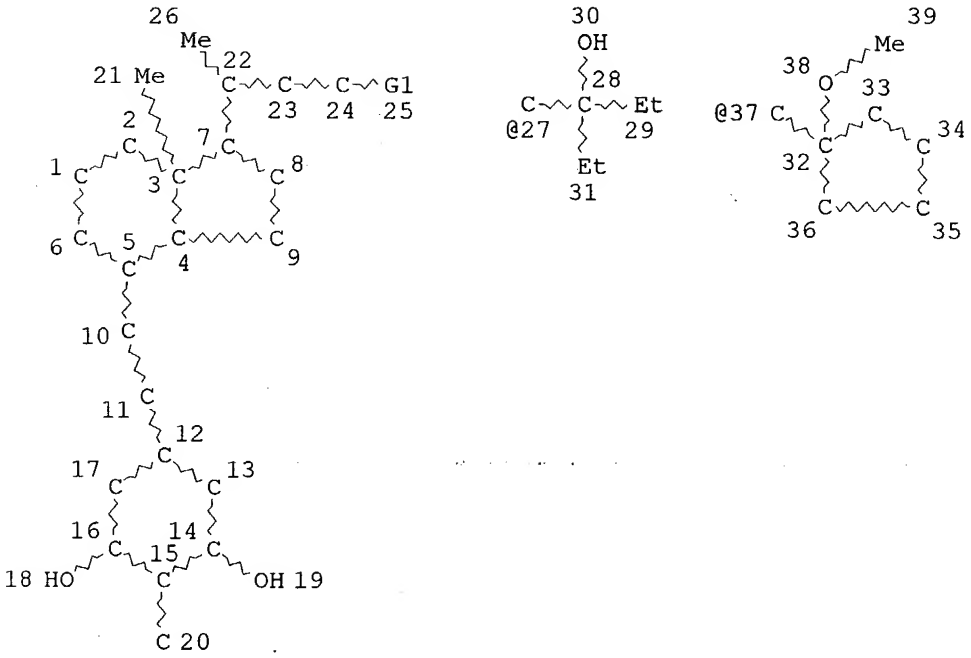
Thank you.

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher:	NA Sequence (#)	STN 594.05
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#) 2	Questel/Orbit
Date Searcher Picked Up	Bibliographic	Dr.Link
Date Completed	Litigation	Lexis/Nexis
Searcher Prep & Review Time 20	Fulltext	Sequence Systems
Clerical Prep Time	Patent Family	WWW/Internet
Online Time 9	Other	Other (specify)

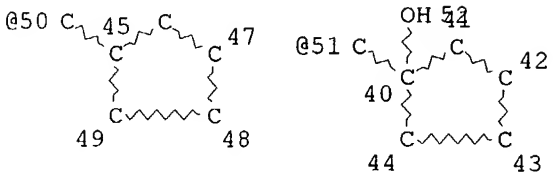
PTO-1590 (8-01)

=> d que
L4 STR



46

Page 1-A



Page 2-A
VAR G1=27/37/51/50
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 52

STEREO ATTRIBUTES: NONE
L5 8 SEA FILE=REGISTRY SSS FUL L4
L6 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L5

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L6 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:387626 HCAPLUS
DOCUMENT NUMBER: 136:401925
TITLE: Preparation of 26,27-homologated-20-epi-2-alkylidene-19-nor-vitamin D compounds as antiosteoporotics and antitumor agents
INVENTOR(S): Deluca, Hector F.; Sicinski, Rafal R.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 370,966, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6392071	B1	20020521	US 2000-540686	20000331
US 5843928	A	19981201	US 1997-819693	19970317
US 5936133	A	19990810	US 1998-151113	19980910
WO 2001074766	A1	20011011	WO 2001-US10317	20010329
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1268416	A1	20030102	EP 2001-920897	20010329
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JP 2003529581	T2	20031007	JP 2001-572461	20010329
US 2002087015	A1	20020704	US 2001-1711	20011031
US 6537981	B2	20030325		
US 2003181427	A1	20030925	US 2003-352745	20030128
US 6696431	B2	20040224		
US 2004167104	A1	20040826	US 2004-780103	20040217

PRIORITY APPLN. INFO.:

US 1997-819693	A3	19970317
US 1998-151113	A1	19980910
US 1999-370966	B2	19990810
US 2000-540686	A	20000331
WO 2001-US10317	W	20010329
US 2001-1711	A3	20011031
US 2003-352745	A3	20030128

OTHER SOURCE(S): MARPAT 136:401925
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

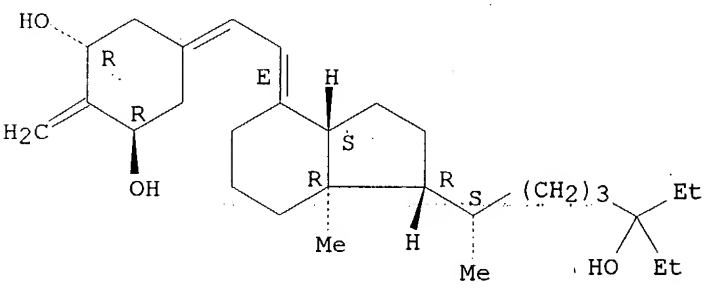
AB Novel vitamin D related compds., namely, 2-alkylidene-19-nor-vitamin D derivs. of formula I [Y1, Y2 = H, protecting group; R6, R8 = alkyl,

hydroxyalkyl, fluoroalkyl, etc., or when taken together represent the group -(CH2)x- where x is an integer from 2 to 5; R = any of the typical side chains known for vitamin D type compds.] are prepared These 2-substituted compds. are characterized by low intestinal calcium transport activity and high bone calcium mobilization activity resulting in novel therapeutic agents for the treatment of diseases where bone formation is desired, particularly low bone turnover osteoporosis. Thus, 20(S)-1α,25-dihydroxy-2-methylene-26,27-dihomo-19-nor-vitamin D3 (II) was prepared via a multistep synthetic sequence starting from 20(S)-25-hydroxy Grundmann's ketone analog III and phosphine oxide IV. The intestinal calcium transport and serum calcium (bone calcium mobilization) activities in vitamin D-deficient rats on a low calcium diet responding to chronic doses of II at 15 pmol/day/7 days were 4.0 ± 0.4 S/M and 5.3 ± 0.1 S/M resp. These compds. also exhibit pronounced activity in arresting the proliferation of undifferentiated cells and inducing their differentiation to the monocyte thus evidencing use as anti-cancer agents and for the treatment of diseases such as psoriasis.

IT **364059-44-9P 364059-50-7P 364059-51-8P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 26,27-homologated-20-epi-2-alkylidene-19-nor-vitamin D compds. as antiosteoporotics and antitumor agents)

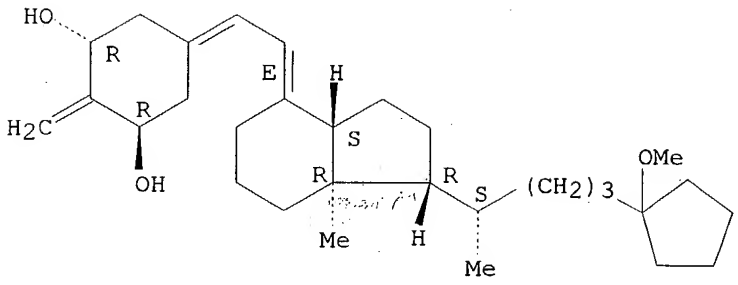
RN 364059-44-9 HCAPLUS
CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methylene-, (1R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



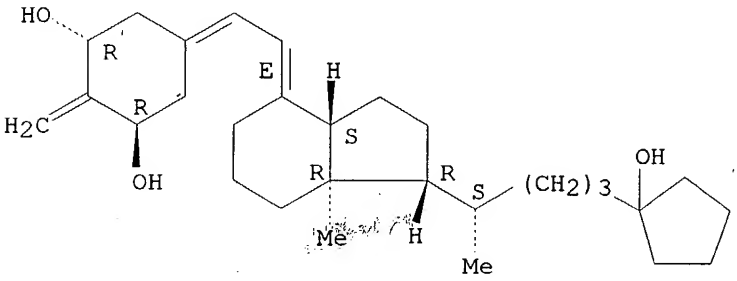
RN 364059-50-7 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-methoxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 364059-51-8 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:133888 HCAPLUS
DOCUMENT NUMBER: 136:380526
TITLE: New highly calcemic 1α,25-dihydroxy-19-norvitamin D3 compounds with modified side chain: 26,27-dihomo- and 26,27-dimethylene analogs in 20S-series
AUTHOR(S): Sicinski, Rafal R.; Prahl, Jean M.; Smith, Connie M.; DeLuca, Hector F.
CORPORATE SOURCE: Department of Biochemistry, College of Agricultural and Life Sciences, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Steroids (2002), 67(3,4), 247-256
CODEN: STEDAM; ISSN: 0039-128X
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB New highly potent 2-substituted (20S)-1α,25-dihydroxy-19-norvitamin D3 analogs with elongated side chain were prepared by Wittig-Horner coupling of A-ring phosphine oxide with the corresponding protected (20S)-25-hydroxy Grundmann's ketones. Biol. evaluation in vitro and in vivo of the synthesized compds. was accomplished. All the synthesized vitamins possessing a 25-hydroxylated saturated side chain were slightly less

active (3-5X) than 1α,25-dihydroxyvitamin D3 in binding to the porcine intestinal vitamin D receptor and significantly more potent (12-150X) in causing differentiation of HL-60 cells. In vivo, 2-methylene-26,27-dihomo and 2α-methyl-26,27-dimethylene analogs were at least 10 times more active, and 2α-methyl-26,27-dihomo compound at least 5 times more active than the vitamin D hormone both in stimulating intestinal calcium transport and bone calcium mobilization (serum calcium increase). It was also established that a 260 pmol dose of the corresponding 2β-Me analogs had a similar effect on intestinal calcium transport and a much more pronounced effect on bone calcium mobilization as the same dose of 1α,25-dihydroxyvitamin D3.

IT **364059-44-9P 364059-51-8P**

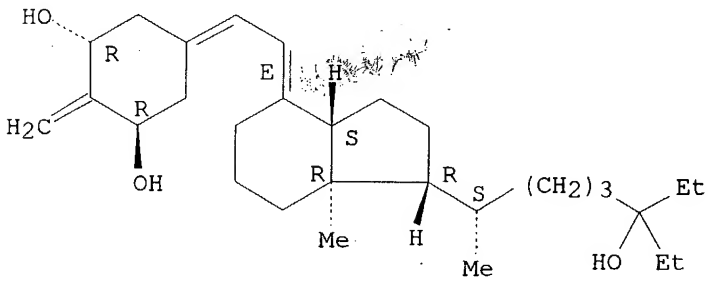
RL: PAC (Pharmacological activity); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(calcitriol analogs preparation and vitamin D-binding, calciotropic and cell differentiating activity)

RN 364059-44-9 HCAPLUS

CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methylene-, (1R,3R)- (9CI) (CA INDEX NAME)

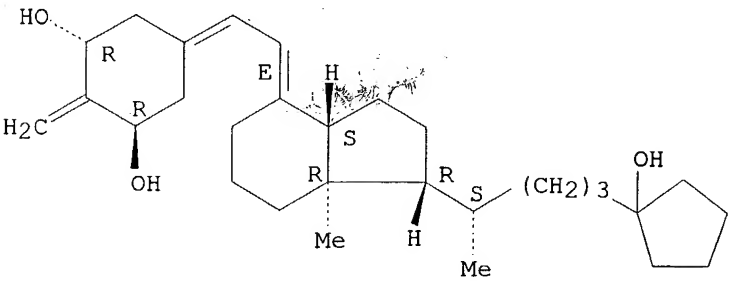
Absolute stereochemistry.
Double bond geometry as shown.



RN 364059-51-8 HCAPLUS

CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

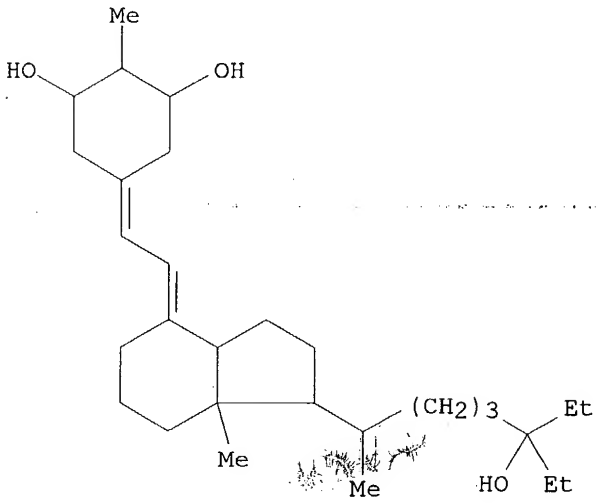
Absolute stereochemistry.
Double bond geometry as shown.



IT **364059-45-0P 364059-49-4P 364059-50-7P**

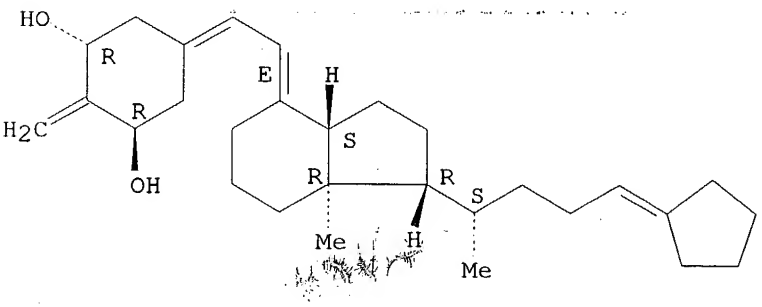
364059-52-9P 372965-48-5P 372965-49-6P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(calcitriol analogs preparation and vitamin D-binding, calciotropic and cell differentiating activity)

RN 364059-45-0 HCAPLUS
CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methyl-, (1R,2S,3R,5E)- (9CI) (CA INDEX NAME)



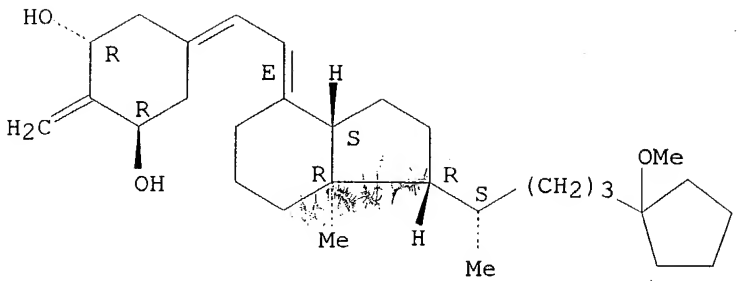
RN 364059-49-4 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-cyclopentylidene-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

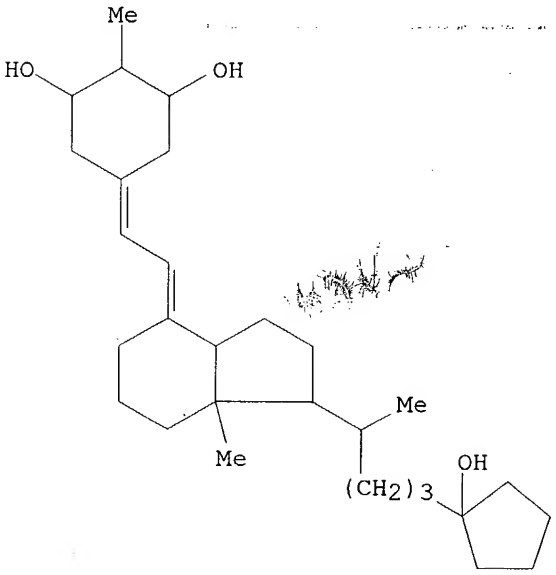


RN 364059-50-7 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-methoxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

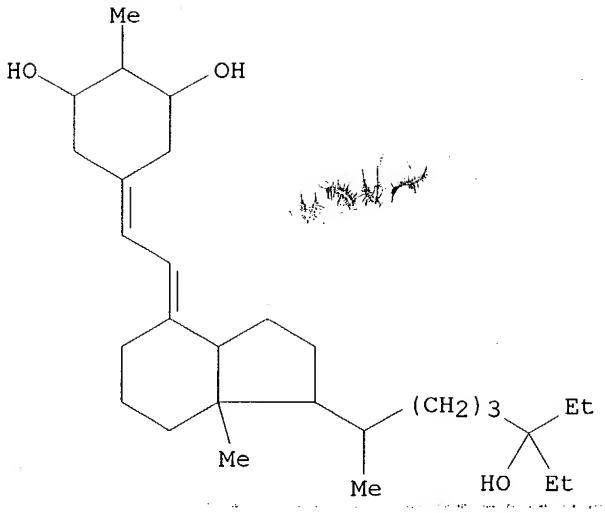
Absolute stereochemistry.
Double bond geometry as shown.



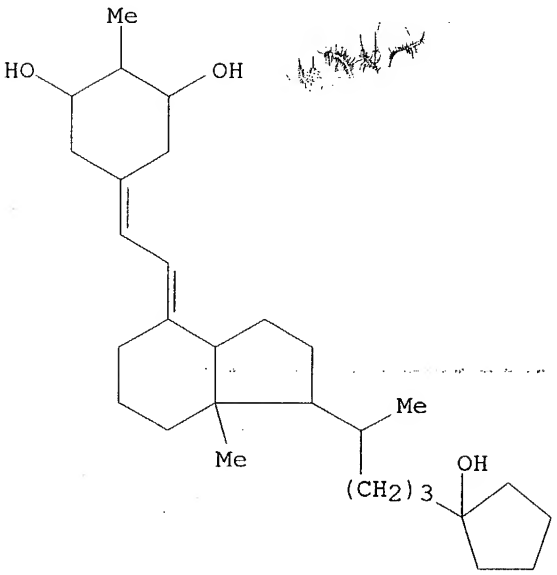
RN 364059-52-9 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methyl-, (1α,2α,3β,5E,7E,20S)- (9CI) (CA INDEX NAME)



RN 372965-48-5 HCAPLUS
CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methyl-, (1R,2R,3R,4Z)- (9CI) (CA INDEX NAME)



RN 372965-49-6 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methyl-, (1α,2α,3β,5Z,7E,20S)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:830900 HCAPLUS
DOCUMENT NUMBER: 135:358086
TITLE: Preparation of 26,27-homologated-20-epi-2-alkyl-19-nor-vitamin D compounds
INVENTOR(S): Deluca, Hector F.; Sicinski, Rafal R.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: U.S., 33 pp., Cont.-in-part of U.S. Ser. No. 454,013.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6316642	B1	20011113	US 2000-541470	20000331
US 5945410	A	19990831	US 1997-819694	19970317
US 6127559	A	20001003	US 1998-135463	19980817
US 6277837	B1	20010821	US 1999-454013	19991203
WO 2001074765	A1	20011011	WO 2001-US10094	20010329
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1268415	A1	20030102	EP 2001-920863	20010329
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004500414	T2	20040108	JP 2001-572460	20010329
US 2002123638	A1	20020905	US 2001-999299	20011031
US 6544969	B2	20030408		
US 2003073857	A1	20030417	US 2002-246968	20020919
US 6667298	B2	20031223		
US 2004072804	A1	20040415	US 2003-673618	20030929
US 2004082802	A1	20040429	US 2003-683330	20031010

PRIORITY APPLN. INFO.:

US 1997-819694	A2	19970317
US 1998-135463	A3	19980817
US 1999-454013	A2	19991203
US 2000-541470	A	20000331
WO 2001-US10094	W	20010329
US 2001-45941	B3	20011019
US 2001-999299	A3	20011031
US 2002-246968	A3	20020919

OTHER SOURCE(S): MARPAT 135:358086
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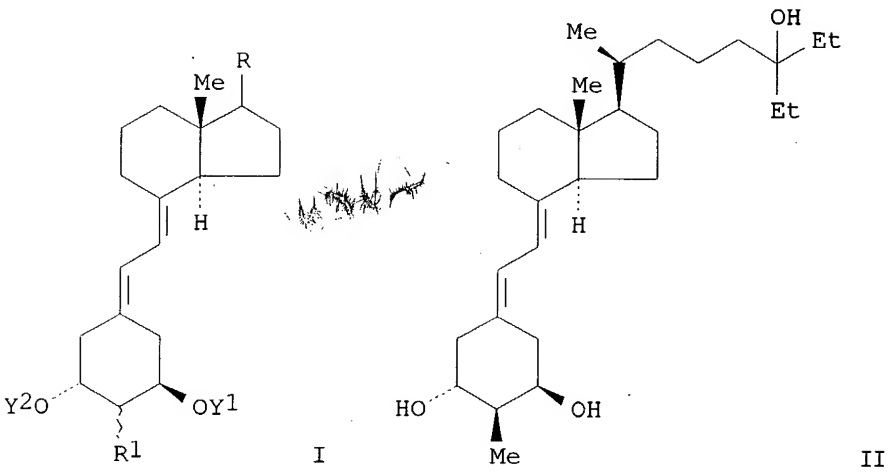
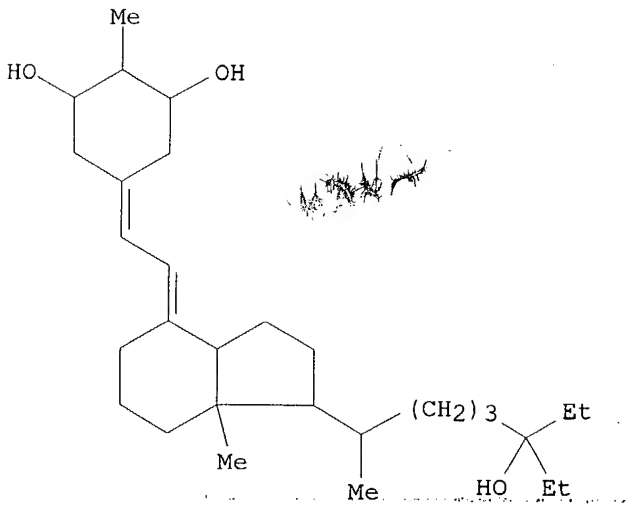


AB 2-Alkyl-19-nor-vitamin D derivs. of formula I [Y1, Y2 = H, protecting group; R = typical side chains known for vitamin D type compds.; R1 = alkyl, hydroxyalkyl, fluoroalkyl] are prepared These 2-substituted compds., especially the 2α-Me and the 2α-methyl-20S derivs., are characterized by relatively high intestinal calcium transport activity and relatively high bone calcium mobilization activity resulting in novel therapeutic agents for the treatment of diseases where bone formation is desired, particularly low bone turnover osteoporosis. These compds. also exhibit pronounced activity in arresting the proliferation of undifferentiated cells and inducing their differentiation to the monocyte thus evidencing use as anticancer agents and for the treatment of diseases such as psoriasis. Thus, II was prepared and showed preferential activity on bone in biol. activity tests.

IT **364059-45-0P 364059-49-4P 364059-50-7P**
364059-52-9P 372965-48-5P 372965-49-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 26,27-homologated-20-epi-2-alkyl-19-norvitamin D compds. with high intestinal calcium transport activity)

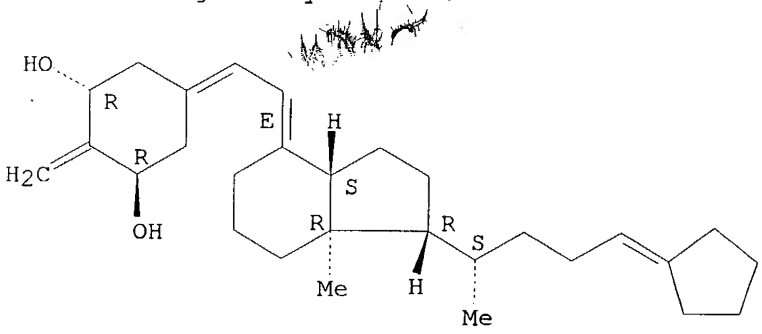
RN 364059-45-0 HCAPLUS

CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methyl-, (1R,2S,3R,5E)- (9CI) (CA INDEX NAME)



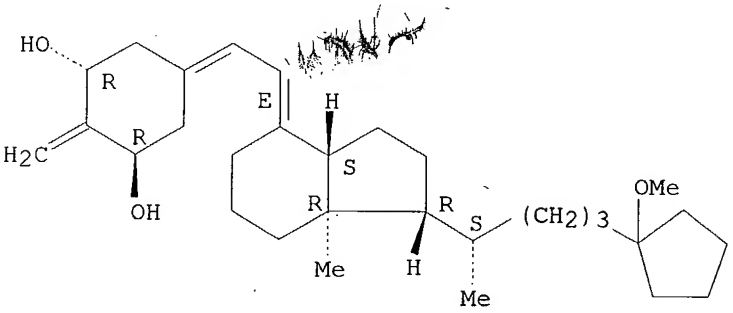
RN 364059-49-4 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-cyclopentylidene-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

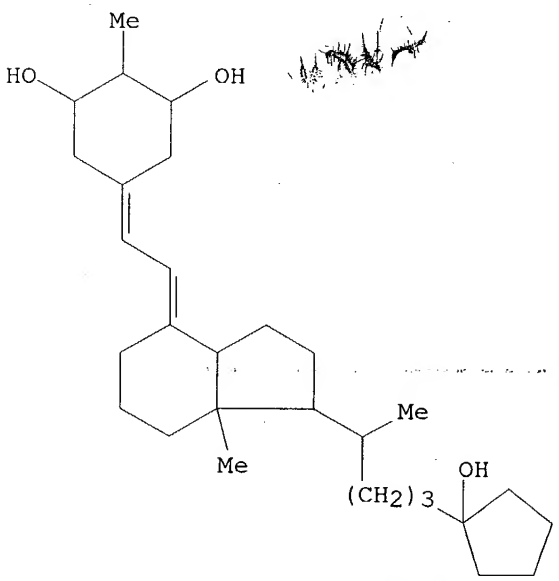


RN 364059-50-7 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-methoxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

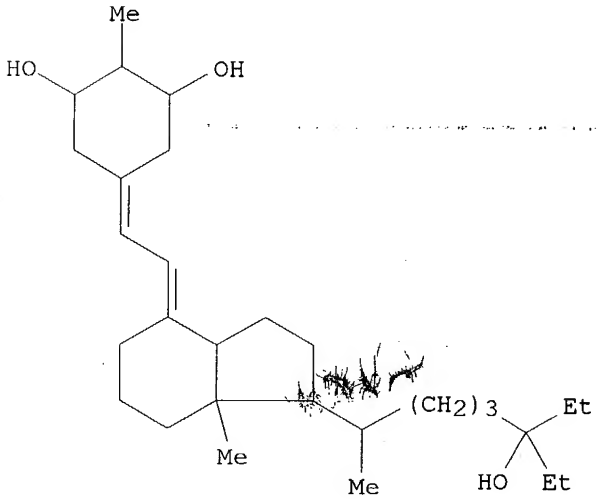
Absolute stereochemistry.
Double bond geometry as shown.



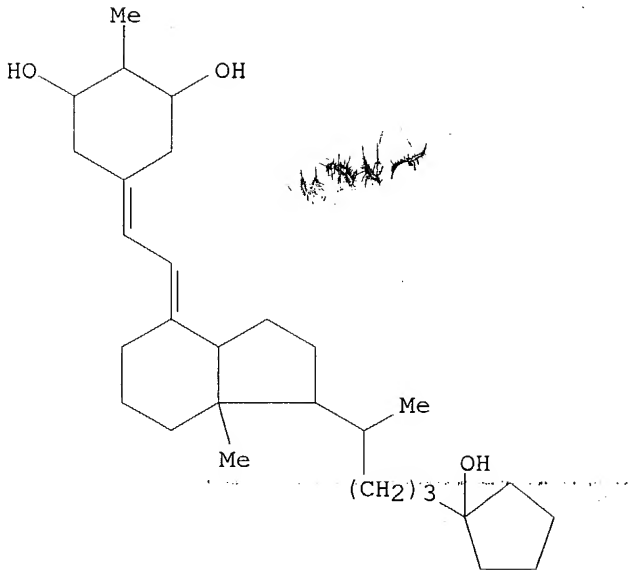
RN 364059-52-9 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methyl-, (1α,2α,3β,5E,7E,20S)- (9CI) (CA INDEX NAME)



RN 372965-48-5 HCAPLUS
CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methyl-, (1R,2R,3R,4Z)- (9CI) (CA INDEX NAME)



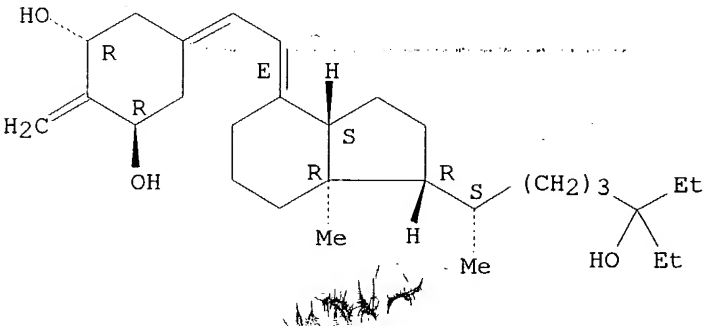
RN 372965-49-6 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methyl-, (1α,2α,3β,5Z,7E,20S)- (9CI) (CA INDEX NAME)



IT **364059-44-9P 364059-51-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 26,27-homologated-20-epi-2-alkyl-19-norvitamin D compds. with high intestinal calcium transport activity)

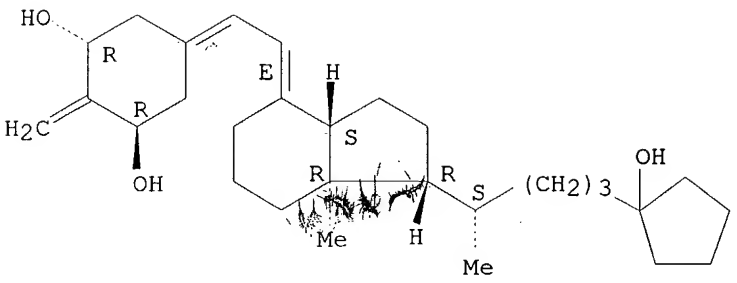
RN 364059-44-9 HCAPLUS
CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methylene-, (1R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 364059-51-8 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

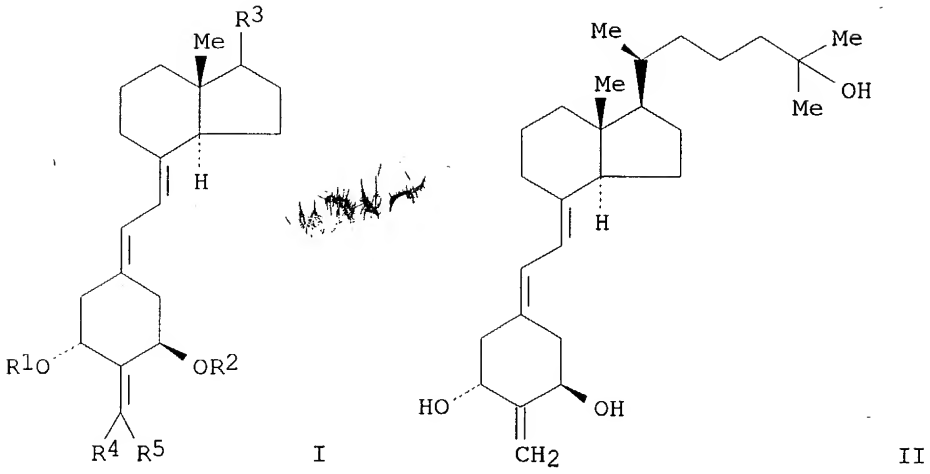
L6 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:747743 HCAPLUS
DOCUMENT NUMBER: 135:288953
TITLE: Preparation of 2-alkylidene-19-nor-vitamin D compounds as antiosteoporotics and antitumor agents
INVENTOR(S): Deluca, Hector F.; Sicinski, Rafal R.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074766	A1	20011011	WO 2001-US10317	20010329
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6392071	B1	20020521	US 2000-540686	20000331
EP 1268416	A1	20030102	EP 2001-920897	20010329
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003529581	T2	20031007	JP 2001-572461	20010329

PRIORITY APPLN. INFO.:

US 2000-540686	A	20000331
US 1997-819693	A3	19970317
US 1998-151113	A1	19980910
US 1999-370966	B2	19990810
WO 2001-US10317	W	20010329

OTHER SOURCE(S): MARPAT 135:288953
GI



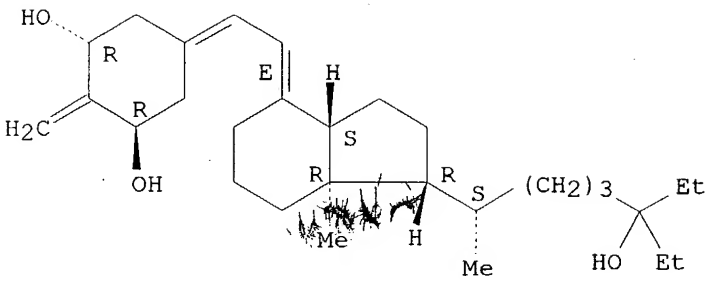
AB Novel vitamin D related compds., namely, 2-alkylidene-19-nor-vitamin D derivs. of formula I [R1, R2 = H, protecting group; R3 = typical side chains known for vitamin D type compds.; R4, R5 = H, alkyl, hydroxyalkyl, fluoroalkyl, etc.; R4R5 = cycloalkylidene] are prepared These 2-substituted compds. are characterized by relatively high intestinal calcium transport activity and relatively high bone calcium mobilization activity resulting in novel therapeutic agents for the treatment of diseases where bone formation is desired, particularly low bone turnover osteoporosis. These compds. also exhibit pronounced activity in arresting the proliferation of undifferentiated cells and inducing their differentiation to the monocyte thus evidencing use as anticancer agents and for the treatment of diseases such as psoriasis. Thus, II is prepared and is found to be extremely potent in inducing differentiation of HL-60 cells.

IT **364059-44-9P 364059-49-4P 364059-50-7P 364059-51-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2-alkylidene-19-nor-vitamin D compds. as antiosteoporotics and antitumor agents)

RN 364059-44-9 HCAPLUS

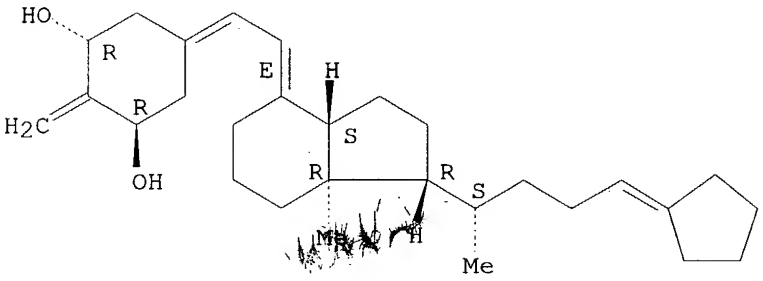
CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methylene-, (1R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



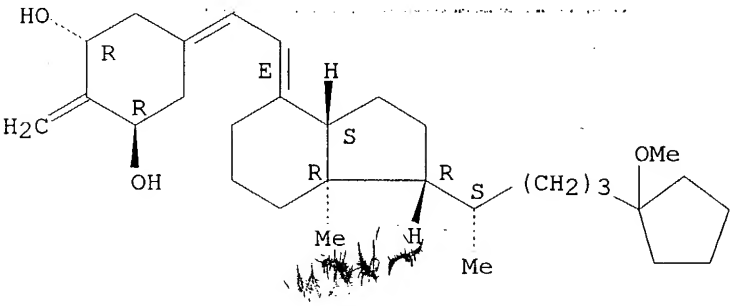
RN 364059-49-4 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-cyclopentylidene-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



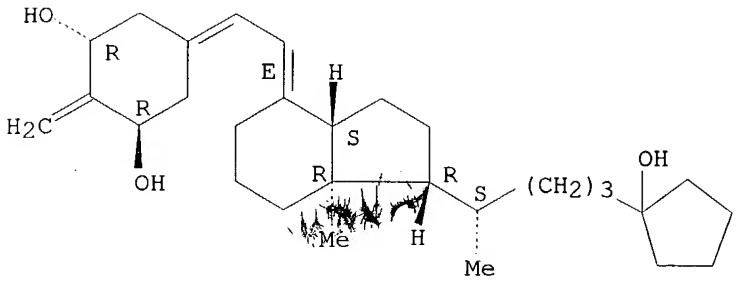
RN 364059-50-7 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-methoxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 364059-51-8 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

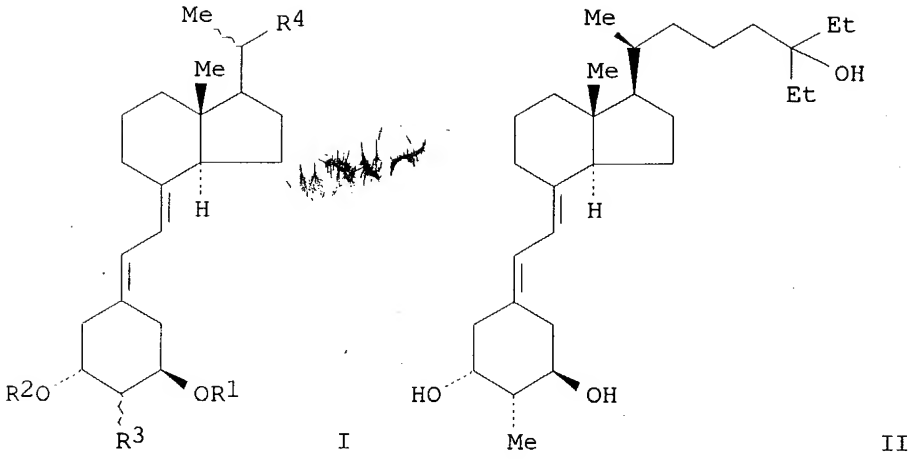
L6 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:747742 HCAPLUS
DOCUMENT NUMBER: 135:304063
TITLE: Preparation of 26,27-homologated-20-epi-2-alkyl-19-nor-vitamin D compounds
INVENTOR(S): Deluca, Hector F.; Sicinski, Rafal R.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074765	A1	20011011	WO 2001-US10094	20010329
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6316642	B1	20011113	US 2000-541470	20000331
EP 1268415	A1	20030102	EP 2001-920863	20010329
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004500414	T2	20040108	JP 2001-572460	20010329
US 2004072804	A1	20040415	US 2003-673618	20030929

PRIORITY APPLN. INFO.:

US 2000-541470	A	20000331
US 1997-819694	A2	19970317
US 1998-135463	A3	19980817
US 1999-454013	A2	19991203
WO 2001-US10094	W	20010329
US 2001-45941	B3	20011019

OTHER SOURCE(S): MARPAT 135:304063
GI

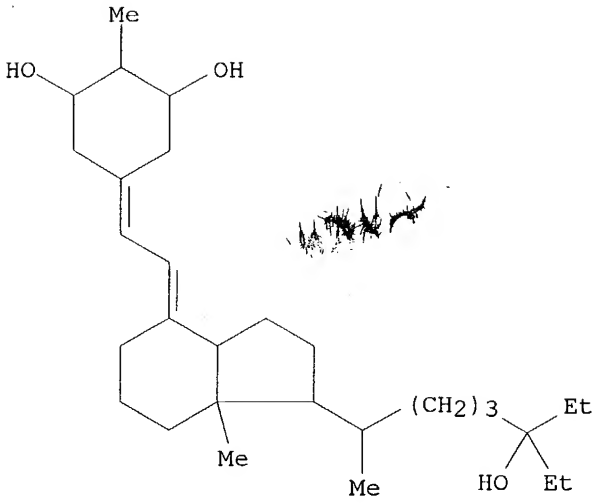


AB 2-Alkyl-19-nor-vitamin D derivs. of formula I [R1, R2 = H, protecting group; R3 = alkyl, hydroxyalkyl, fluoroalkyl; R4 = H, Me, acyl, OH, any of the typical side chains known for vitamin D type compds., etc.] are prepared These compds. are characterized by relatively high intestinal calcium transport activity and relatively high bone calcium mobilization activity resulting in novel therapeutic agents for the treatment of diseases where bone formation is desired, particularly low bone turnover osteoporosis. These compds. also exhibit pronounced activity in arresting the proliferation of undifferentiated cells and inducing their differentiation to the monocyte thus evidencing use as anti-cancer agents and for the treatment of diseases such as psoriasis. Thus, II is prepared and had a VDR binding ratio of 5.5, and HL-60 differentiation ED50 of 1.1 x 10-10 M.

IT **364059-45-0P 364059-49-4P 364059-50-7P 364059-52-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 26,27-homologated-20-epi-2-alkyl-19-nor-vitamin D compds. as antiosteoporotics and antitumor agents)

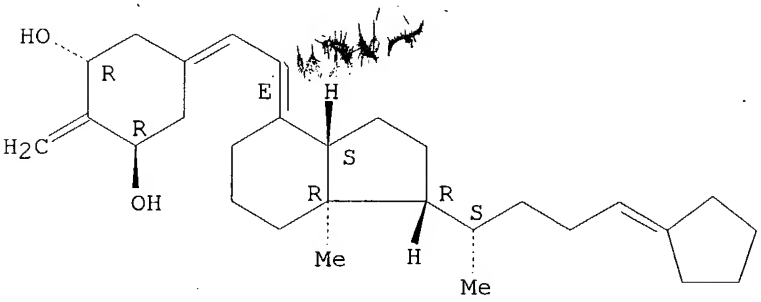
RN 364059-45-0 HCAPLUS

CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methyl-, (1R,2S,3R,5E)- (9CI) (CA INDEX NAME)



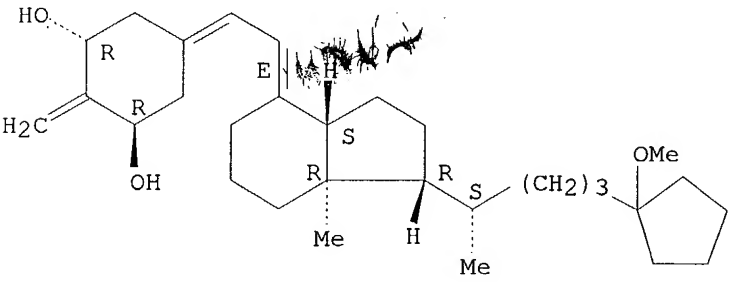
RN 364059-49-4 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-cyclopentylidene-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

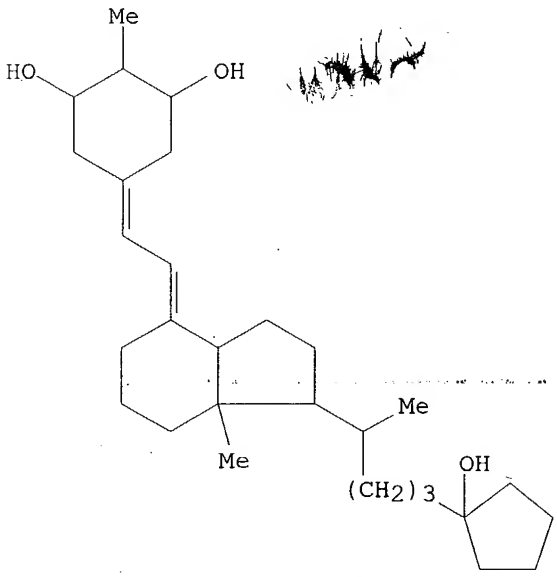


RN 364059-50-7 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-methoxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



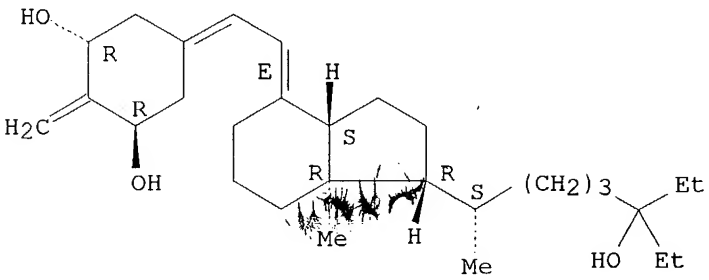
RN 364059-52-9 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methyl-, (1α,2α,3β,5E,7E,20S)- (9CI) (CA INDEX NAME)



IT **364059-44-9P 364059-51-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 26,27-homologated-20-epi-2-alkyl-19-nor-vitamin D compds. as antiosteoporotics and antitumor agents)

RN 364059-44-9 HCAPLUS
CN 1,3-Cyclohexanediol, 5-[(2E)-[(1R,3aS,7aR)-1-[(1S)-5-ethyl-5-hydroxy-1-methylheptyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-2-methylene-, (1R,3R)- (9CI) (CA INDEX NAME)

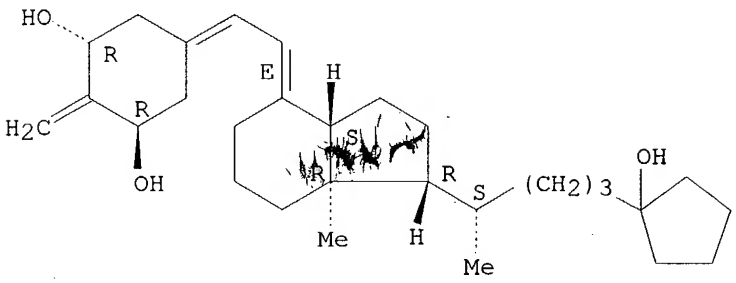
Absolute stereochemistry.
Double bond geometry as shown.



RN 364059-51-8 HCAPLUS
CN 19-Nor-9,10-secochola-5,7-diene-1,3-diol, 24-(1-hydroxycyclopentyl)-2-methylene-, (1α,3β,7E,20S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 1 OF 2 USPATFULL on STN
ACCESSION NUMBER: 2002:116429 USPATFULL
TITLE: 26,27-homologated-20-EPI-2-alkylidene-19-nor-vitamin D compounds
INVENTOR(S): DeLuca, Hector F., Deerfield, WI, United States
Sicinski, Rafal R., Warsaw, POLAND
PATENT ASSIGNEE(S): Wisconsin Alumni: Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6392071	B1	20020521
APPLICATION INFO.:	US 2000-540686		20000331 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-370966, filed on 10 Aug 1999, now abandoned Continuation of Ser. No. US 1998-151113, filed on 10 Sep 1998, now patented, Pat. No. US 5936133 Division of Ser. No. US 1997-819693, filed on 17 Mar 1997, now patented, Pat. No. US 5843928
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Qazi, Sabiha
LEGAL REPRESENTATIVE: Andrus, Sceales, Starke & Sawall, LLP
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 1372
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides a novel class of vitamin D related compounds, namely, the 2-alkylidene-19-nor-vitamin D derivatives, as well as a general method for their chemical synthesis. The compounds have the formula: ##STR1##

where Y.sub.1 and Y.sub.2, which may be the same or different, are each selected from the group consisting of hydrogen and a hydroxy-protecting group, R.sub.6 and R.sub.8, which may be the same or different, are each selected from hydrogen, alkyl, hydroxyalkyl and fluoroalkyl, or when taken together represent the group --(CH.sub.2).sub.x-- where x is an integer from 2 to 5, and where the group R represents any of the typical side chains known for vitamin D type compounds. These 2-substituted compounds are characterized by relatively high intestinal calcium transport activity and relatively high bone calcium mobilization activity resulting in novel therapeutic agents for the treatment of diseases where bone formation is desired, particularly low bone turnover osteoporosis. These compounds also exhibit pronounced activity in arresting the proliferation of undifferentiated cells and inducing their differentiation to the monocyte thus evidencing use as anti-cancer agents and for the treatment of diseases such as psoriasis.

L7 ANSWER 2 OF 2 USPATFULL on STN
ACCESSION NUMBER: 2001:202815 USPATFULL
TITLE: 26,27-Homologated-20-EPI-2alkyl-19-nor-vitamin D compounds
INVENTOR(S): DeLuca, Hector F., Deerfield, WI, United States
Sicinski, Rafal R., Warsaw, Poland
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,

United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6316642	B1	20011113
APPLICATION INFO.:	US 2000-541470		20000331 (9)

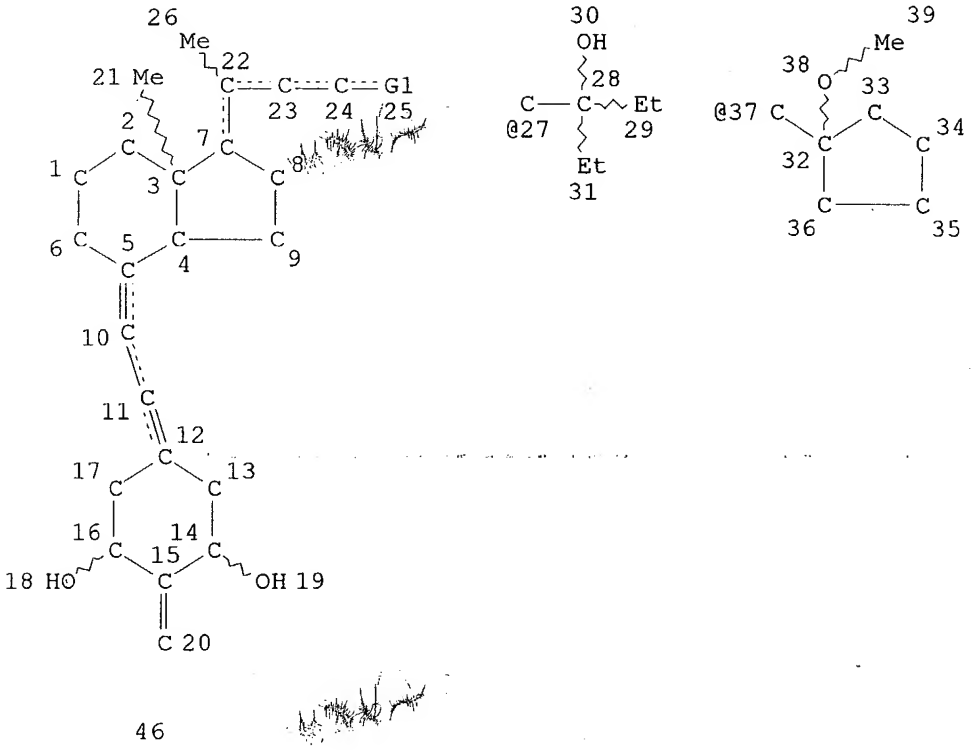
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-454013, filed on 3 Dec 1999 Division of Ser. No. US 1998-135463, filed on 17 Aug 1998, now patented, Pat. No. US 6127559 Continuation-in-part of Ser. No. US 1997-819694, filed on 17 Mar 1997, now patented, Pat. No. US 5945410

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Qazi, Sabiha
LEGAL REPRESENTATIVE: Andrus, Sceales, Starke & Sawall, LLP
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 1931
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

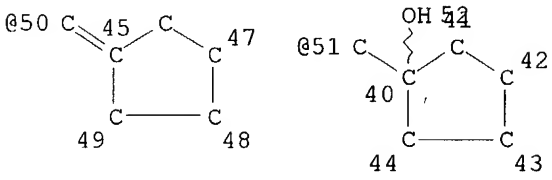
AB This invention provides a novel class of vitamin D related compounds, namely, 2-alkyl-19-nor-vitamin D derivatives, as well as a general method for their chemical synthesis. The compounds have the formula: ##STR1##

where Y.sub.1 and Y.sub.2, which may be the same or different, are each selected from the group consisting of hydrogen and a hydroxy-protecting group, R.sub.6 is selected from the group consisting of alkyl, hydroxyalkyl and fluoroalkyl, and where the group R represents any of the typical side chains known for vitamin D-type compounds. These 2-substituted compounds, especially the 2α-methyl and the 2α-methyl-20S derivatives, are characterized by relatively high intestinal calcium transport activity and relatively high bone calcium mobilization activity resulting in novel therapeutic agents for the treatment of diseases where bone formation is desired, particularly low bone turnover osteoporosis. These compounds also exhibit pronounced activity in arresting the proliferation of undifferentiated cells and inducing their differentiation to the monocyte thus evidencing use as anti-cancer agents and for the treatment of diseases such as psoriasis.

=> d que
L1 STR



Page 1-A



Page 2-A
VAR G1=27/37/51/50
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

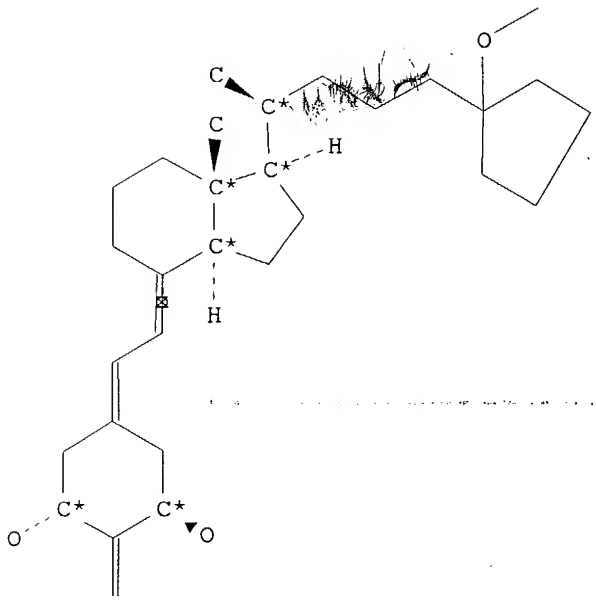
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 52

STEREO ATTRIBUTES: NONE
L11 4 SEA FILE=BEILSTEIN SSS FUL L1

=> d l11 qrd allref 1-4

L11 ANSWER 1 OF 4 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN):	9173594
Chemical Name (CN):	5-(2-<1-<4-(1-methoxy-cyclopentyl)-1-methyl-butyl>-7a-methyl-octahydro-inden-4-ylidene>-ethylidene)-2-methylene-cyclohexane-1,3-diol
Autonom Name (AUN):	5-(2-<1-<4-(1-methoxy-cyclopentyl)-1-methyl-butyl>-7a-methyl-octahydro-inden-4-ylidene>-ethylidene)-2-methylene-cyclohexane-1,3-diol
Molec. Formula (MF):	C30 H48 O3
Molecular Weight (MW):	456.71
Lawson Number (LN):	6521, 289
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	isocyclic
Constitution ID (CONSID):	7747734
Tautomer ID (TAUTID):	8602773
Entry Date (DED):	2002/10/21
Update Date (DUPD):	2002/10/21



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1

FW	Formular Weight	1
LN	Lawson Number	2
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
MS	Mass Spectrum	1
NMR	Nuclear Magnetic Resonance	2
PHARM	Pharmacological Data	3
UVS	UV and Visible Spectrum	1

This substance also occurs in Reaction Documents:

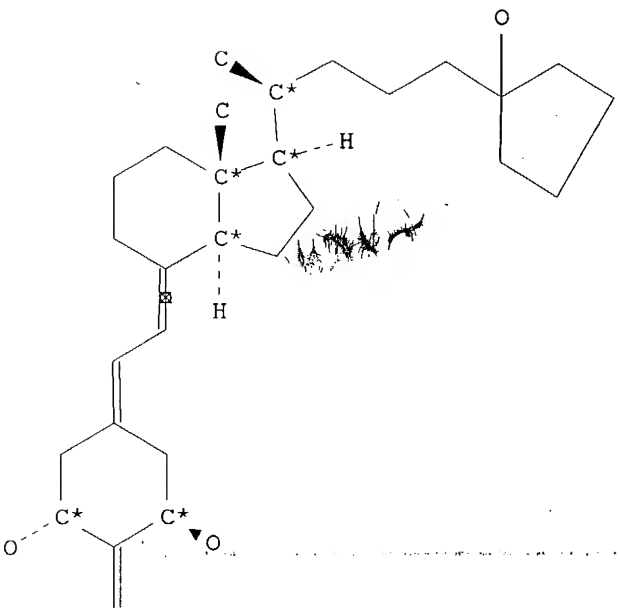
Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

All References:
ALLREF

1. Sicinski, Rafal R.; Prahl, Jean M.; Smith, Connie M.; DeLuca, Hector F., Steroids, CODEN: STEDAM, 67(3-4), <2002>, 247 - 256; BABS-6343937

L11 ANSWER 2 OF 4 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN):	9173561
Chemical Name (CN):	(20S)-1α,25-dihydroxy-26,27-dimethylene-2-methylene-19-norvitamin D3
Autonom Name (AUN):	5-(2-<1-<4-(1-hydroxy-cyclopentyl)-1-methyl-butyl>-7a-methyl-octahydro-inden-4-ylidene>-ethylidene)-2-methylene-cyclohexane-1,3-diol
Molec. Formula (MF):	C29 H46 O3
Molecular Weight (MW):	442.68
Lawson Number (LN):	6521
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	isocyclic
Constitution ID (CONSID):	7747682
Tautomer ID (TAUTID):	8602725
Entry Date (DED):	2002/10/21
Update Date (DUPD):	2002/10/21



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	1
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
MS	Mass Spectrum	1
NMR	Nuclear Magnetic Resonance	2
PHARM	Pharmacological Data	3
UVS	UV and Visible Spectrum	1

This substance also occurs in Reaction Documents:

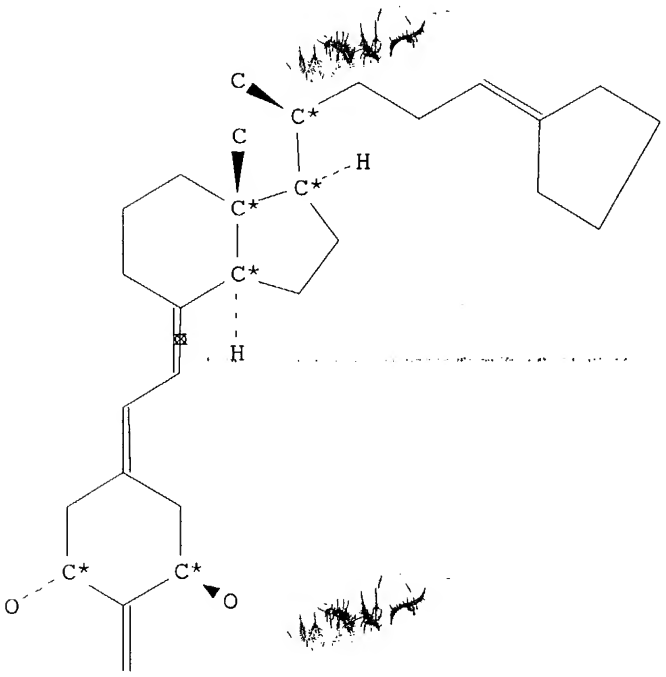
Code	Name	Occurrence
RX	Reaction Documents	3
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	2

All References:
ALLREF

1. Sicinski, Rafal R.; Prahl, Jean M.; Smith, Connie M.; DeLuca, Hector F., Steroids, CODEN: STEDAM, 67(3-4), <2002>, 247 - 256; BABS-6343937

L11 ANSWER 3 OF 4 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN):	9172414
Chemical Name (CN):	5-<2-<1-(4-cyclopentylidene-1-methyl-butyl)-7a-methyl-octahydro-inden-4-ylidene>-ethylidene>-2-methylene-cyclohexane-1,3-diol
Autonom Name (AUN):	5-<2-<1-(4-cyclopentylidene-1-methyl-butyl)-7a-methyl-octahydro-inden-4-ylidene>-ethylidene>-2-methylene-cyclohexane-1,3-diol
Molec. Formula (MF):	C29 H44 O2
Molecular Weight (MW):	424.67
Lawson Number (LN):	6176
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	isocyclic
Constitution ID (CONSID):	7746122
Tautomer ID (TAUTID):	8601022
Entry Date (DED):	2002/10/21
Update Date (DUPD):	2002/10/21



Field Availability:

Code	Name	Occurrence

BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
LSF	Linearized Structure Formula	1
MF	Molecular Formula	1
FW	Formular Weight	1
FBRN	Fragment BRN	2
LN	Lawson Number	1
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
MS	Mass Spectrum	1
NMR	Nuclear Magnetic Resonance	2
PHARM	Pharmacological Data	3
UVS	UV and Visible Spectrum	1

This substance also occurs in Reaction Documents:

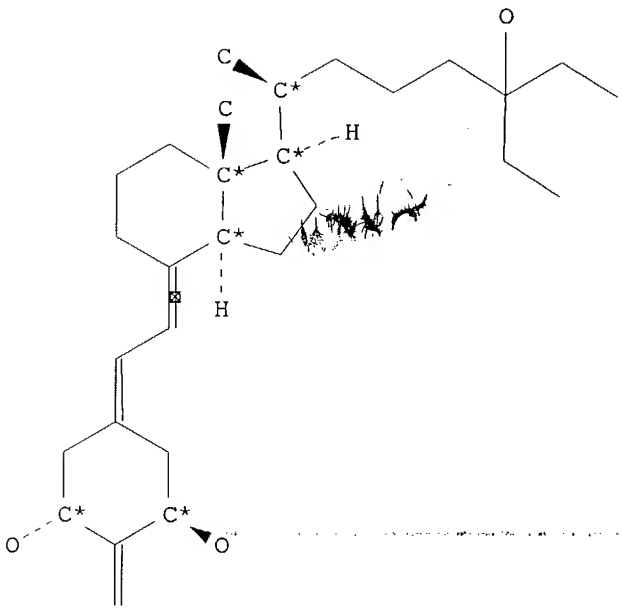
Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

All References:
ALLREF

1. Sicinski, Rafal R.; Prahl, Jean M.; Smith, Connie M.; DeLuca, Hector F., Steroids, CODEN: STEDAM, 67(3-4), <2002>, 247 - 256; BABS-6343937

L11 ANSWER 4 OF 4 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN):	9172049
Chemical Name (CN):	(20S)-1α,25-dihydroxy-2-methylene-26,27-dihomo-19-norvitamin D3
Autonom Name (AUN):	5-<2-<1-(5-ethyl-5-hydroxy-1-methyl-heptyl)-7a-methyl-octahydro-inden-4-ylidene>-ethylidene>-2-methylene-cyclohexane-1,3-diol
Molec. Formula (MF):	C29 H48 O3
Molecular Weight (MW):	444.70
Lawson Number (LN):	6523
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	isocyclic
Constitution ID (CONSID):	7746565
Tautomer ID (TAUTID):	8600404
Entry Date (DED):	2002/10/21
Update Date (DUPD):	2002/10/21



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	1
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
MS	Mass Spectrum	1
NMR	Nuclear Magnetic Resonance	2
PHARM	Pharmacological Data	3
UVS	UV and Visible Spectrum	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

All References:
ALLREF

1. Sicinski, Rafal R.; Prahl, Jean M.; Smith, Connie M.; DeLuca, Hector F., Steroids, CODEN: STEDAM, 67(3-4), <2002>, 247 - 256; BABS-6343937

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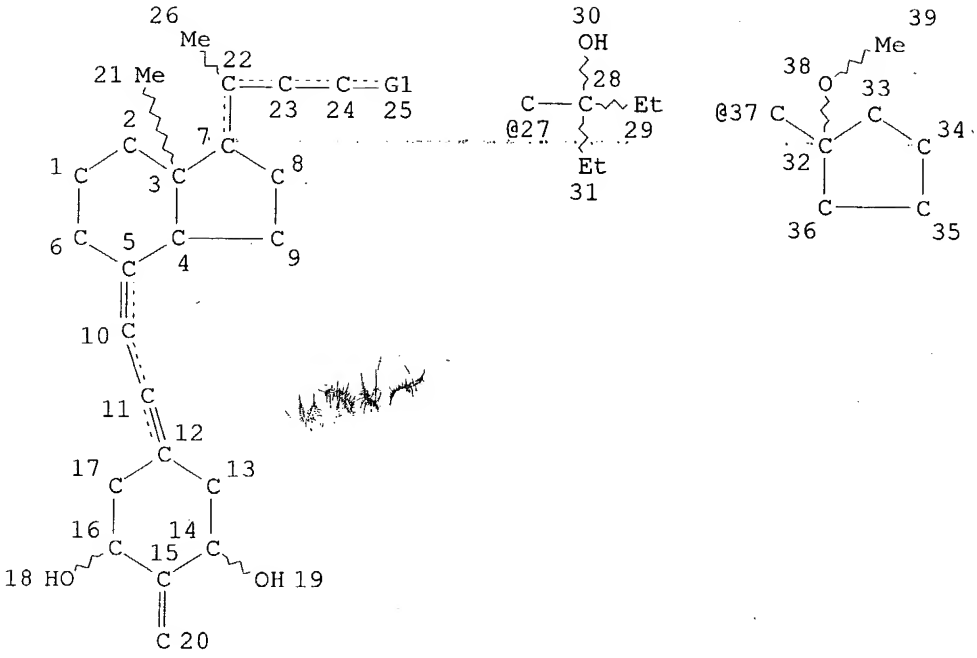

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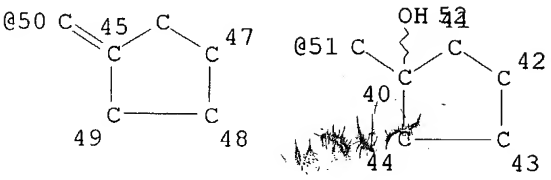
Page 1-A



Page 2-A
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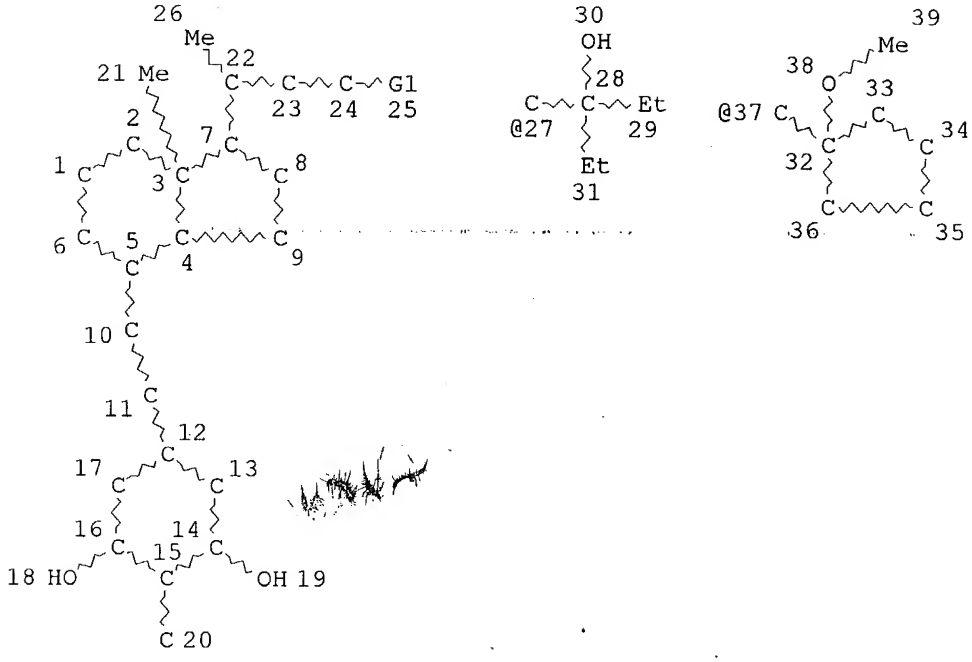
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 52

STEREO ATTRIBUTES: NONE
L4 STR



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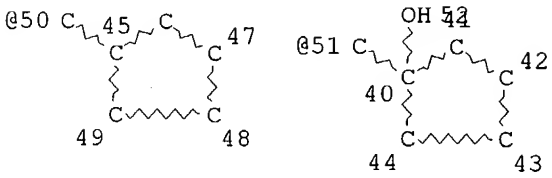
Page 1-A



Page 2-A
VAR G1=27/37/51/50
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 52

STEREO ATTRIBUTES: NONE
L5 8 SEA FILE=REGISTRY SSS FUL L4
L6 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L5
L9 6 SEA FILE=MARPAT SSS FUL L1
L10 3 SEA FILE=MARPAT ABB=ON PLU=ON L9 NOT L6

=> d l10 ibib abs qhit 1-3

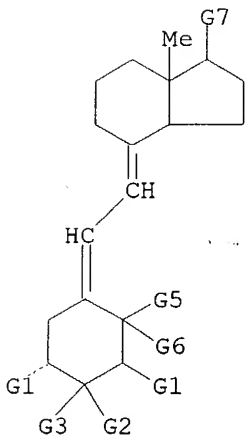
L10 ANSWER 1 OF 3 MARPAT COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 135:283217 MARPAT
TITLE: Vitamin D compounds used to stabilize kidney transplants
INVENTOR(S): Deluca, Hector F.; Becker, Bryan N.; Sollinger, Hans W.; Hullett, Debra A.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001072292	A2	20011004	WO 2001-US8939	20010320
WO 2001072292	A3	20020516		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1267886	A2	20030102	EP 2001-920583	20010320
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003528833	T2	20030930	JP 2001-570253	20010320
US 2003225045	A1	20031204	US 2003-240029	20030313
PRIORITY APPLN. INFO.:			US 2000-192649P	20000327
			WO 2001-US8939	20010320

AB A method of stabilizing kidney function in transplant patients is disclosed. In one embodiment, the method comprises the steps of kidney transplant patient, wherein the transplant patient is undergoing immunosuppressive therapy, with a sufficient amount of vitamin D compound whereby the kidney function stabilizes. Calcitriol therapy was beneficial in preserving renal graft function in the setting of kidney of kidney-pancreas transplantation as determined in a study.

MSTR 1



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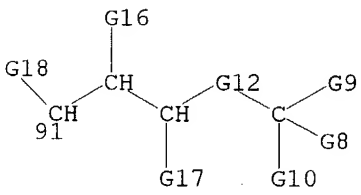
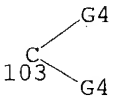


G8 = OH
G11 = (2-5) CH2
G14 = (1-5) CH2
G18 = Me
G2 +G3 = 103



MPL: claim 9
NTE: heteroatom interruptions also claimed
NTE: substitution is restricted

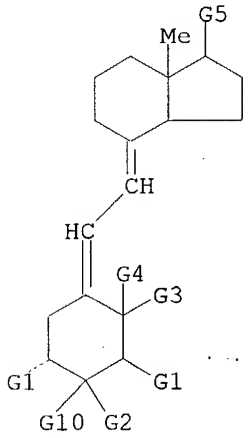
L10 ANSWER 2 OF 3 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 134:105886 MARPAT
TITLE: Dietary calcium as a supplement to vitamin D compound treatment of multiple sclerosis
INVENTOR(S): Deluca, Hector F.; Cantorna, Margherite T.; Humpal-Winter, Jean
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

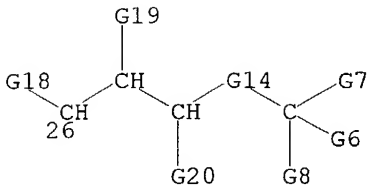
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001003704	A1	20010118	WO 2000-US17323	20000623
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002016313	A1	20020207	US 1999-349528	19990708
US 6479474	B2	20021112		
EP 1196174	A1	20020417	EP 2000-941671	20000623
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003504337	T2	20030204	JP 2001-508984	20000623
US 2003022873	A1	20030130	US 2002-231726	20020830
US 2003207847	A1	20031106	US 2003-405653	20030402
PRIORITY APPLN. INFO.:			US 1999-349528	19990708
			WO 2000-US17323	20000623
			US 2002-231726	20020830

AB A method of and composition for diminishing multiple sclerosis symptoms are disclosed. In one embodiment, the method comprises the step of administrating an amount of calcium and a vitamin D compound effect to diminish multiple sclerosis symptoms. In another embodiment, the invention is a pharmaceutical composition comprising an amount of calcium and vitamin D compound effective to diminish multiple sclerosis symptoms.

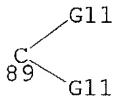
MSTR 1



G1 = OH
G5 = 26



G6 = OH
G9 = (2-5) CH2
G15 = (1-5) CH2
G18 = Me
G2 +G10= 89



MPL: claim 13
NTE: heteroatom interruptions also claimed

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 3 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 133:330067 MARPAT
TITLE: Treatment of systemic lupus erythematosus symptoms with vitamin D compounds
INVENTOR(S): Deluca, Hector F.; Cantorna, Margherita T.; Humpal-Winter, Jean
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

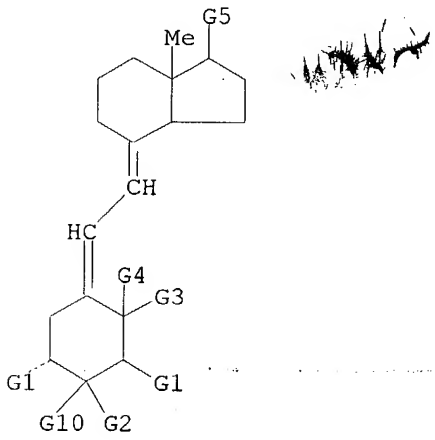
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066098	A2	20001109	WO 2000-US11104	20000425
WO 2000066098	A3	20010531		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002028830	A1	20020307	US 1999-422571	19991021
US 6673782	B2	20040106		
EP 1181020	A2	20020227	EP 2000-923617	20000425

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

JP 2002543115 T2 20021217 JP 2000-614983 20000425
PRIORITY APPLN. INFO.: US 1999-301970 19990429
US 1999-422571 19991021
WO 2000-US11104 20000425

AB A method of treating systemic lupus erythematosus (SLE) symptoms (proteinuria and lymph node swelling) comprising administering to an SLE patient an amount of a vitamin D compound effective to reduce symptoms is disclosed. The vitamin D compound is preferably 1,25(OH)2D3 or one of its analogs and the vitamin D compound can be coadministered with a calcium supplement.

MSTR 1



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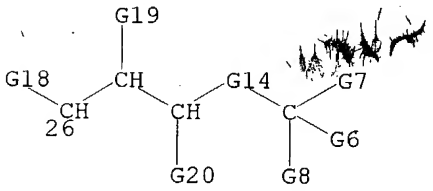
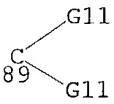
G5 = 26



G6 = OH
G9 = (2-5) CH2
G15 = (1-5) CH2
G18 = Me
G2 +G10= 89



MPL: claim 13
NTE: heteroatom interruptions also claimed